

# Building the Hydrogen Eco System

Pure Hydrogen Corporation Limited

February 2024 (ASX: PH2)



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#### **Geological Information**

The geological information in this presentation relating to geological information and resources is based on information compiled by Mr Lan Nguyen, who is a Member of Petroleum Exploration Society of Australia and the Society of the Petroleum Engineers and has sufficient experience to qualify as a Competent Person. Mr Nguyen consents to the inclusion of

the matters based on his information in the form and context in which they appear. The information related to the results of drilled petroleum wells has been sourced from the publicly available well completion reports. The Company has used a conversion factor of 1.05 to convert Bcf amounts to PJs equivalent.

Notes 1. As reported in Announcement dated 4 May 2021 – the 1C 87.7 Pj, 2C 130.3 Pj and 157,9 Pj – the remaining prospective resource was 536 Pj

The total of 1.1 TCF 3C AND 14.9 TCF Prospective is a combination of Windorah gas project 770 Bcf and 8.8 Tcf, Venus Gas Project 157.9Pj 3Cand 536PJ Prospective and Serowe Gas Project

200.7 Bcf and 10.072 Bcf best estimate – Pure Hydrogen has a 30% working interest in the Serowe Project.

Note 2 – The Contingent resources is a summary of of 2 reports for the Windorah Gas Project. One estimate prepared by DeGolyer and MacNaughton, a leading international petroleum industry consulting firm in June 2015 in respect of the Queenscliff Area and one estimate prepared by Aeon Petroleum Consultants in respect of the Tamarama area completed in August 2019. The Prospective estimate of 8.8 Tcf is based on the work by DeGolyer and MacNaughton adjusted for the permit that was relished by the Company.

Note 3 – As reported in the Announcement on the 12 April 2022 – the Serowe Project has contingent Resources of 1C 237.5, 2C 316.7 and 3C of 395.9 Bcf and best estimated of 10.07 Bcf – all figures 100%.



# Australia's First Hydrogen Fuel Cell Prime Mover, introducing



#### HOLISTIC HYDROGEN PORTFOLIO

Building an integrated hydrogen business which manufactures/distributes hydrogen and fuel cell vehicles, vessels, and generators.



### HYDROGEN FUEL CELL TECHNOLOGY

#### Equity interests in hydrogen fuel cell vehicle companies HDrive and H2X

Global distribution rights for HDrive vehicles and rights to distribute H2X vehicles and equipment across Australia, Europe, Malaysia and India.

Delivering a Taurus Prime Mover; two waste trucks and two buses in early 2024.

\$125 million funding facility partner identified, allowing Pure Hydrogen to lease vehicles and supply hydrogen on long term contracts.

Commitments from quality clients are building with orders expected subject to successful truck trials.



#### H2 PRODUCTION AND DISTRIBUTION

Becoming a hydrogen utility as third- party sellers for production/ supply companies.

Short-term: Developing Green Hydrogen production plants in modular form located close to customers.

Medium-term: Emerald and Turquoise Hydrogen production plants featuring partner technology.

A network of hydrogen production sites have been identified along Australia's East Coast.

Due diligence and approval processes are currently underway across several sites.



# AN EMERGING INTEGRATED HYDROGEN UTILITY

- Supplying high-quality, lowcost Hydrogen on long-term contracts
- Selling Hydrogen-electric devices and vehicles, generating ongoing demand for Hydrogen supply
- Offering ancillary services to support Hydrogen-electric devices, including the supply and service of electrolysers and refuelling pods
- Maintaining a CAPEX-light approach to Hydrogen production, through partnering with investors and companies seeking carbon abatement opportunities and access to valuable carbon byproducts





# A FOUNDATION OF STRATEGIC INVESTMENTS, JOINT VENTURES AND PARTNERSHIPS

## Partnering with Hydrogen truck, buses and hydrogen fuel cell devices manufacturers



Hdrive
- Trucks and busses
(PH2: 60%)



H2X
- Fuel cell generators
(PH2: 20%)



Hydrogen Fuel Cells Generators



AusShips

– Marine Vessels



Advik Hi-Tech
– India JV



Ballard

– Hydrogen fuel cells

## Underpinnned by market-leading Hydrogen manufacturing technology providers



Omni Emerald Hydrogen (PH2 100%)



Turquoise Group

– Turquoise Hydrogen
(PH2: 40%)



Auyun – Green Hydrogen



CIMC ENRIC

– Green Hydrogen



#### HDRIVE TRUCKS AND BUSES



#### **Refuse Truck**

ENERGY TYPE: AXLE CONFIGURATION: H2 Fuel-Cell Electric 6×4

RANGE: ≥250km

TOP SPEED: 100km/h



#### 15 - 70T Heavy Truck

ENERGY TYPE: TRACTION BATTERY: H2 Fuel-Cell Electric 73.57 kWh, CATL

RANGE: HYDROGEN FUEL CELL: ≥400km 160 to 400kW, Ballard

TOP SPEED: 100km/h



#### **Low Floor City Bus Range**

ENERGY TYPE: H2 Fuel-Cell Electric or Battery Electric

RANGE: ≥500km

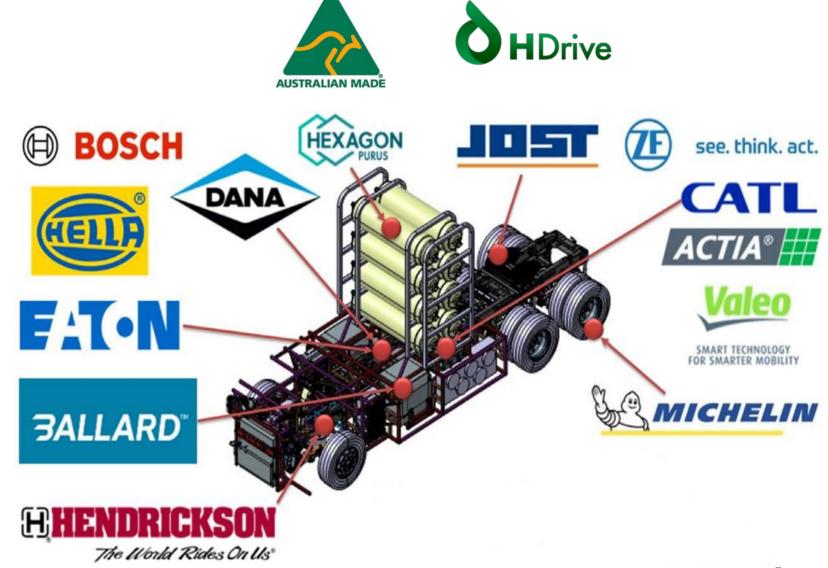
TOP SPEED: 100km/h

PASSENGER CAPACITY: 13 to 80 Passengers

HYDROGEN FUEL CELL: 60 to 200kW, Ballard

#### HIGH QUALITY COMPONENTS

HDrive supports the leading global component suppliers, with growing support of Australian product development and assembly.



GROWING DEMAND FOR H<sup>2</sup> FUEL CELL VEHICLES + BEV

As at December 2023

3 six-month trial commitments

>100 truck options<sup>1</sup>

firm vehicle orders for delivery in 2024

\$125m leasing facility<sup>2</sup>





MULTIPLE
TRIALS
ADVANCING
TO
COMPLETION
IN THE
NEXT SIX
MONTHS





Customer:
Solo Resources
Device:

HFC Garbage Truck





Customer:
JJ Waste
Device:
HFC Garbage Truck





**Customer:** 

Australian Meat Processing Corporation

**Device:** 

HFC 50Kw Hydrogen Generator





Producer: Turquoise Group

(PH2 holds 40% investment stake)

Brisbane-based commercial demonstration plant for the manufacture of turquoise hydrogen and graphene





## **H2 FUEL CELL** TRUCK TRIAL



#### HDRIVE WASTE COLLECTI ON VEHICLES

- Established a market-leading position in the waste management sector in Australia
- Trials secured with two large waste management groups in Australia - JJ Richards & Solo
- JJ's is one of the Australia's largest waste management companies with a 2000+ vehicle fleet; early 2024 vehicle trial in SE Qld
- Solo services ~15,000 customers and has signed up for a trial of a FCEV refuse truck in Tweed region commencing mid 2024
- Potential for multi-vehicle fleet orders post successful trials









US MARKET ENTRY PRESENTS MASSIVE OPPORTUNITY

60%-owned Hdrive has secured a Purchase Order to supply a 6x4 50T Prime Move and 54-seater coach.

- Valued initially at US\$1.22m with first vehicles due for delivery 1H CY24
- Purchase Order secured with California- based Nutcher Hydrogen, a specialist heavy vehicle dealership
- Vehicles will initially be used as demonstration vehicles for potentially much larger commercial orders
- A key beachhead to enter the large and lucrative US market





#### HYDROGEN POWER GENERATI ON – MYNT

First approved Hydrogen Fuel Cell Generator in Queensland.

- Mynt Technologies is a leading Australian power generator manufacturer, manufacturing hydrogen electric power generators. The Purple H2 is designed to provide a clean energy alternative solution to diesel generators in base load applications for mining, industrial, agricultural and construction clients
- Trial secured with Australian Meat Processing Corporation to be used in an Abattoir in Qld to help decarbonize the Red Meat industry
- H2 Generators can be used also as a conduit for the BEV market as a clean green source of remote power to help with EV Charging.







#### GREEN HYDROGEN MICRO-HUB

In CY24, Pure Hydrogen plans to produce green hydrogen from a micro-hub.

- Pure Hydrogen plans concept sites for its micro-hub strategy, within close proximity to its customers
- Micro-hubs will produce green hydrogen using on-site solar and green electricity
- Electrolysers will be module built and delivered to sites fully assembled
- Micro-hubs are easily scalable in-line with increasing demand

- There will be 24-hour refuelling for hydrogen fuel cell technology vehicles, trucks and devices
- Pure Hydrogen is exploring partnership opportunities with its customers to install micro-hubs within their depots.





#### GREEN HYDROGEN MICRO-HUB

- Low capex small modular electrolyser
- Electrolyser already build for Pure Hydrogen – next completing factory acceptance testing
- Will look to partner with existing service station operators once we prove the model
- We are working with several larger vendors about modularising the compression and load out.
- Reviewing several sites in major capital cities







# EXPERIENCED BOARD AND LEADERSHIP TEAM

#### **Board of Directors**



**Scott Brown**Managing Director

Scott has over 30 years' experience as a director and an executive in ASX-listed companies, including Real Energy, Objective Corporation, Allegiance Mining and Mosaic Oil.



The Hon. Adam Giles
Non-Executive Director

The Hon. Adam Giles was the 10th Chief Minister of the Northern Territory and held office from 2013 thru 2016. Since leaving politics, Adam has held several senior corporate roles, including a long-term engagement with Hancock Prospecting.



**Lan Nguyen**Non-Executive Director

Lan has over 25 years' experience in petroleum exploration, development and production in Australia and internationally, and was the Managing Director at ASX-listed Mosaic Oil.



**Ron Prefontaine**Non-Executive Director

Ron has over 40 years' experience in the oil and gas industry and was the Executive and Managing Director at two successful ASX-listed companies, Arrow Energy and Bow Energy.

#### Leadership team



**Les Nelson**GM Operations

Les has over 30 years' experience working in industrial and retail markets, including 20 years at Australia's largest Liquified Petroleum Gas distributor, Elgas Ltd, as General Manager.



**Craig Beatton**Financial Controller

Craig has over 20 years experience as a Financial Officer with rolls at DXN Limited, LawFinance Limited, and CFO at Shaw and Partners Limited.



**Gareth Ford** Hydrogen Technology

Gareth has over 20 years' experience in hydrogen, oil and gas, water, energy and process engineering. He is a Registered Professional Engineer of Queensland in both Chemical and Environmental Engineering.



**Clint Butler**Sales Manager

Clint has 15 years' experience and has worked with numerous multinationals in the Liquid Petroleum Gas industry and was the Executive Director for an energy monitoring company for 11 years.



Ben Kiddle CEO HDrive International

Ben has significant experience across zero-emission heavy and light commercial fleet. He held senior management roles across adjacent sectors including a key role in the business of Custom Denning, across business development and aftersales support.

#### Other Corporate Information

Cash Position 31 Dec 2023: \$8.564m

Shares on issue: 355m

Market
Capitalisation:
\$42.6m

(based on the closing share price of \$0.12 on 8 February 2024)

#### PURE HYDROGEN PRIORITIES





# APPENDICES Pure Hydrogen

#### GLOBAL HYDROGEN DEMAND IS GROWING



#### **Government support**

has increased as many are investing in research and development for the production and usage<sup>1</sup>



Increasing interest in using hydrogen as a **clean energy source** for powering vehicles and generating electricity, with zero emissions<sup>1</sup>

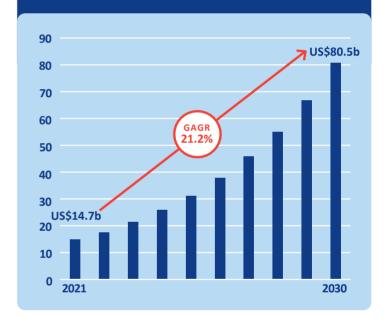


The cost of producing hydrogen is falling due to the continual **advancement** in technology making it cheaper to produce hydrogen from renewable sources<sup>1</sup>



#### **Growing infrastructure**

for using and storing green hydrogen with increases in the number of refuelling stations for hydrogen powered vehicles and new storage facilities<sup>1</sup> THE GLOBAL HYDROGEN FOR FUEL CELL MARKET WAS VALUED AT US\$14.7 BILLION IN 2021 AND IS PROJECTED TO GROW AT A CAGR OF 21.2% FROM 2021 TO REACH US\$80.5 BILLION BY THE YEAR 2030<sup>1</sup>



"Deloitte's 2023 analysis of the global potential of the green hydrogen market predicts steady and significant growth, with the market reaching a value of US\$1.4 trillion by 2050."

www.springwise.com

#### HYDROGEN FUEL TO REPLACE IMPORTED FOSSIL FUELS

## Pure Hydrogen is executing on a multi-faceted and integrated growth strategy



**POWER GENERATION** 

Off grid
EV charging
Back up for solar/wind
Construction sites
Farms and Mines



**TRUCKS AND BUSES** 

Garbage Trucks
Prime movers
Short and long haul buses
Long term supplying
service Stations



JV Aus Ships

Battery Charging/ Hydrogen Fuel Cells

Establishing marine refuelling stations









